medicine is seldom ineffectual in the neuralgic and congestive forms of dysmenorrhœa, or the modifications of both these forms; but it is of no use in the mechanical form of the disease. Slender fresh roots, from the size of a swan-quill downwards, should be preferred. ʒss to ℈ij of the root should be well rubbed up with eight or nine black peppers in a little water, and should be taken in the morning on an empty stomach. This dose should be repeated for seven days successively, commencing from two days before the appearance of the menses, and continuing until two days after their cessation, that is to say, two days before the appearance of the menses, three days during the flow, and two days after their cessation, making altogether seven days. In case of missing the two premenstrual days, the medicine can be taken on the first day of the appearance of the menses, and continued for seven days, with equally good results.—*The Indian Med. Gaz.*, July 1, 1872.

26. *Elimination Theory of the Cure of Diseases.*—Dr. F. E. Anstie in several papers (*The Practitioner*, vol. viii. pp. 161, 289. 356) has investigated the action of the organism when poisoned with narcotic doses of alcohol, and its behaviour in presence of mineral poisons, and in neither case has he found the least reason to believe that there was such an escape of the poisonous matters as could produce any considerable remediable effect. In the No. of the same Journal, for August, of the present year, he examines a different class of poisons, the alkaloids, in order to see whether they, by their manner of elimination, afford any analogical support to the theory of Nature's cure of diseases by expulsion of morbid matters from the body; and arrives at the conclusion, that the results of his researches lend no support whatever to the idea that preservative design is the basis of alkaloidal elimination. "Here, as before, we are only able to recognize the ordinary physical phenomena of endosmose and exosmose, and mechanical circulation by diffusion, supplemented of course by the action of the heart, which pumps the blood into the ramifications of the arterial and capillary systems."

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

27. *Treatment of Aneurism.*—Mr. Oliver Pemberton, Professor of Surgery in Queen's College, Birmingham, in his address on Surgery before the British Medical Association at its recent meeting, called attention to some most interesting points connected with the treatment of Aneurism and read the following interesting and very instructive remarks:—

"Professor Lister's improvement in the Hunterian operation, by which the permanent closure of the artery at the spot tied can be insured, without dividing the coats of the vessel, at once effects a complete change in some of the most important conclusions that for long years have guided us in our treatment of aneurism. One of the greatest dangers attending the Hunterian operation has hitherto been considered to be the application of the ligature immediately beyond any considerable branch of an artery. This impression has deterred surgeons from applying a ligature to that portion of the artery which otherwise would have seemed to them best adapted for the purpose. That an abiding coagulum will form under certain circumstances in the vicinity of almost any number of branches on the proximal side of a ligature, I am perfectly satisfied; but the attainment of this success in many cases depends on a fact which it is almost impossible for the surgeon to estimate beforehand; that is, the facility with which the blood will coagulate or deposit its fibrin in any particular instance. In the case I am about to relate, the existence of this tendency, in a much greater degree than usual, was the main cause of the success of the operation.

"In June, 1870, I saw F., aged 60, strumous from childhood, and highly intellectual. There was an aneurism, three months old, of the left superficial femoral artery, about five inches below Poupart's ligament. There were marked indications of general arterial disease, and, during the past twelve months, of semi-paralytic seizures, evidently due to temporary hindrance to the cerebral circulation. Pressure failed, and was abandoned at the end of three months. I then advised ligature—the aneurism rapidly increasing. On October 12th, the aneurism having 'leaked' the previous day, in the presence and with the sanction of Sir James Paget, I tied the common femoral with a hempen ligature. Fearing, from the diseased state of his arteries, the worst results, as the ligature might be thrown off, the wound was left completely open, being simply covered for protection. In forty days the ligature came away, and the patient died a week afterwards, from causes wholly removed from aneurism. There was no hemorrhage, but gangrene may be said to have commenced in one toe. When I came to dissect the arteries I found the circumflex ilii, epigastric, and the profounda femoris given off together, that is at opposite points of a line drawn round the main trunk, a little above Poupart's ligament, the point of ligature being five-eighths of an inch below these vessels, the part of artery intervening being firmly plugged. The profunda was pervious for some distance and then plugged. There were plugs of former date in the right and left carotids and in the left axillary arteries. The aneurismal sac was filled by broken down clot and fluid blood, and would have suppurated.

"Now I cannot consider this case as any contribution to the surgery of the common femoral, though I hoped and expected it would be so; for I think hardly any doubt can be entertained that the patient would have died from secondary hemorrhage on the separation of the ligature, had it not been for the unusual tendency of the blood to coagulate, for nothing could well be closer than those three vessels were to its site. At the same time I think, with Porter and Macnamara (On Ligature of Common Femoral, *British Medical Journal*, II., 1867, p. 285), that the exclusion of the common femoral, on account of the assumed liability to secondary hemorrhage and gangrene that follows its ligation, is not founded on any solid basis. It was selected in this instance in preference to the external iliac, and I should so select it again; of course, on the presumption that I was going to place my ligature in the vicinity only of such branches as the epigastric and circumflex ilii; in the presence of which I feel satisfied that an adequate coagulum may, under ordinarily favourable circumstances, be reasonably expected to form.

"It is rather here then I draw your particular attention to this feature of coagulation. For I ask myself this question: If I had tied the artery—complicated as its irregularity was in this instance—with a hempen ligature, and there had not existed this tendency, would it have held? Assuredly not. This same tendency to coagulation, as manifested in the collateral vessels, whilst it preserved the patient's life, would, I may observe, have subsequently caused his death by gangrene. Further, it appears to me that in proportion as the coats of the arteries deviate from their natural state, and as the general vital conditions are lowered, so is this tendency increased.

"Surgically speaking, then, this very circumstance of diseased arteries and tendency to blood-coagulation, in some cases, establishes a reason why the surgeon should not refrain from operating where the diseased condition of the coats of the arteries alone would lead him to abstain from interference. And it is clearly of the utmost importance to increase this tendency to the coagulation of the blood as much as possible, after all operations for aneurism, by good diet, and by the absence of all depressing remedial agents.

"Apart from this question of coagulation, I feel warranted in expressing my conviction that too much stress has been laid on the disturbing influence of a large branch or branches taking origin close to the part of the vessel tied. If, however, we are to believe the teaching of Professor Lister (*Observations on Ligature of Arteries.* Edinburgh: 1869), it will be of little moment in the future whether a plug form on either the proximal or distal side of the ligature at all, so long as the 'prepared catgut' insures permanent closure of the vessel at the spot tied, without severance of the coats, and, consequently, without liability to secondary hemorrhage.

"From what I have seen since this case came under my notice, I am glad, before such a meeting, to be able to express my unbounded admiration of and confidence in the use of the animal ligature, as placed before us by Professor Lister. If the so-called 'antiseptic system' has effected no more for surgery than to give us the means of effectually closing an artery without cutting it through, and without suppuration, it has in doing this placed the crowning glory on the treatment of aneurism, for which it has waited since the time of Hunter.

"For forty days I watched patiently for the detachment of this ligature with an open wound to escape deep-seated suppuration. I watched twenty-one days in a case last May, in which I tied the external iliac for aneurism at Poupart's ligament; and though the case did perfectly well, the suppuration about the track of the hempen cord gave me the greatest anxiety.

"Last August, Mr. Lund, at Manchester, tied the same artery with a catgut ligature. No pus was secreted; the wound healed on the eighth day.

"Professor Lister remarks that ligature of the innominate must yet prove, with these means at command, 'a very safe procedure.' Yes; but always, I presume, provided that the coats of the artery are healthy where the ligature is applied; and on this we await further evidence: given this, and I feel inclined to echo the assurance.

"I shall now endeavour to show that the principles of treatment in the methods of flexion, compression of the sac, manipulation, are one and the same.

"The method of flexion can only be applicable to certain arteries. All that it is needful to do is to keep the limb flexed, not continuously, but to such an extent as to alter the relations between the orifices of ingress and egress, and the fibrinous laminæ of the sac. Some of these laminæ become, as it were, dislocated, and protrude more or less into the stream when a fresh deposit of fibrin occurs, and so the cure is gradually effected.

"The exercise of pressure on the artery above the angle of flexion appears to be useless. What we want is a stream of blood flowing into the aneurism; that it should be more or less retarded there, and that there should be present something in the nature of a foreign body; for example, the fibrinous laminæ, on which blood would coagulate and deposit its fibrine. This retardation of the blood in the sac can be effected by a gentle compression of the artery on the distal side of the aneurism; as I strongly hold that what we want in these cases is a deposition of fibrin rather than a coagulation of blood. For, surely, the slow deposition, layer after layer, of solid fibrin in the sac, until the filling-in is complete, is a surer guarantee against subsequent mishaps than if it were closed by a mass of suddenly coagulated blood.

"I place before you the case of K., a Lascar, 22, who came under my care May 10, 1859, having an aneurism of the left popliteal artery of four months' duration. Flexion was maintained for seventy-two hours, with the result of the aneurism ceasing to pulsate, and becoming solid in eleven hours. Compression, during the first forty-eight hours, of moderate character was also made by Weiss's instrument on the artery in Scarpa's space.

"I believe that this was the first instance on record in which the combination of compression and flexion was made use of; and the case was published very fully at the time in the *Lancet*. But I feel satisfied now, in reviewing it, that pressure below the sac would have proved more advantageous than above.

"If one wanted convincing of the very slight means whereby important curative changes may be brought about in aneurismal sacs, I have but to ask a consideration of the facts connected with the following cure, in thirty-nine hours, of a popliteal aneurism.

"M., 28, a porter, came under my care on the 17th January, 1871, with an aneurism of the right popliteal artery five months old. On the 22d, I showed the patient how I proposed to treat him—by flexion—at the same time bending his leg, and arresting the circulation through the sac. It is very likely that the patient, in the afternoon, subsequently to my visit, imitated my proceeding, as he seemed very much struck by what I had done. Be this, however, as it may, I only bent the limb once, and fingered the sac lightly, and told him to keep quiet. At two A. M. on the 23d, he was seized with a sudden aching, shooting, gnawing pain in the neighbourhood of the aneurism, extending down the calf of the leg as far as the ankle, and upwards as far as the crest of the ilium. The pain continued very intense for some hours, during which he had no sleep. He had severe nausea, but no vomiting, and was chilly. The pulsation in the aneurism seemed unchanged, but he remained poorly all the day.

"On the 24th, he slept until three A. M., when he awoke and found that pulsation had ceased in the aneurism. The limb was cold below the knee, and œdematous; and though the pain of the previous day was better, it was not gone. On examining the aneurism it felt hard, and was free from pulsation. He was subsequently discharged cured.

"I am inclined to think that coagulation commenced here after the first flexion; that the deposit of coagulum, after a few hours, increased rapidly, as indicated by pain which culminated in intensity as the sac was solidified. There may have been a clot detached which plugged up either the proximal or the distal orifice; if so, it took place at the final exacerbation of pain, when pulsation ceased; for I certainly judged the contents, when I bent the limb, to be fluid.

"The verification of the intense pain that occurs, when the blood-current is forced suddenly into narrow collaterals, or at the supreme moment when the contents of the sac are solidified, was here very conspicuous.

"To ask, for a few minutes, the judgment of a skilled assembly, such as this, on the probability of applying pressure with success to the actual sac of an aneurism, would appear to be returning to the pre-Hunterian period; and yet had the theory by which aneurisms are cured now, been fully comprehended then, I can have little doubt that the necessary deposition of fibrin would have been brought about in many instances that otherwise signally failed.

"I entertain the opinion that compression of the sac ought to be used more frequently than it is now. The principle of this proceeding is exactly the same as flexion; we want simply to alter the relations of the laminated fibrin to the cavity of the aneurism, so as to bring about a further deposition of fibrin on the projecting surfaces of any of the displaced laminæ. The pressure need not be continuous. It should be very gentle. It need not, even, be distributed uniformly. But it must ever be borne in mind, that if it be carried to such an extent as to empty the sac, and to press one wall against the other, then a cure cannot occur. The very conditions under which a cure is possible are here ignored. Blood must pass through the sac. It must not pass through too rapidly; and I now think that this would be facilitated by gentle pressure being made on the artery below the aneurism.

"In March, 1857, I visited D., 67, an active sportsman and farmer. He had an aneurism, a month old, of the right external iliac artery, just above Poupart's ligament. It was somewhat fusiform in shape, measuring three inches in length, by one and a half in breadth. There was no bruit. I failed to arrest the circulation through the aneurism by making pressure on the artery above, but I found I could greatly limit the current by making pressures on the sac itself. The question of an operation being raised, I advised that, as a ligature could hardly be applied to a sound artery, other than in the course of the common iliac, and bearing in mind the vicinity of the bifurcation, no operation should now be performed; but that Dr. Carte's compressor, under careful management, should be applied to the sac itself. Accordingly under my directions two senior students (the late Mr. Dennis Moore, of Walsall, and Dr. Neal, of Birmingham) remained with the patient. The treatment extended over a period of six weeks. During the first fortnight, little good was effected. Then, for eight consecutive days pressure was applied, on an average of seven-and-a-half hours per day. The pressure effectually retarded the circulation—nothing more—and was never applied for more than three or four hours at a time. Consequently the patient was not wearied, and had undisturbed nights. There was now a complete interval of nine days, during which no pressure was applied, the aneurism being firmer and with less pulsation, and he was allowed to move about in his room. Then followed nine days of treatment, averaging six hours and a-half per day. From this time the aneurism ceased to pulsate, and the patient gradually resumed his ordinary avocations. He is yet living, in his eighty-third year, active and well. In December last (letter from Mr. Earlam, of Abbots Bromley) the remains of the aneurism were represented by an indurated enlargement about the size of a chestnut.

"I venture to think that even Dr. Macnamara will give me credit for having studied O'Bryen Bellingham (*Observations on Aneurism*, London, 1847) to some purpose, who, happily for my patient, published his observations in the January of this very year.

"Reduce the force and volume of the blood-current by any carefully considered measures, and we follow out the reasoning of Brasdor and Wardrop in the distal ligature; a reasoning which is rendered amenable to treatment of internal aneurisms hitherto beyond surgery; a reasoning that has the authority of nature's own proceedings to recommend it, from the fact that it is more or less identical with the mode in which the so-called spontaneous cures are brought about.

"I own, this case—unique as it is in this situation—has always been in my mind, on the discovery of any fresh instance of aneurism. It serves to confirm the soundness of the remark, that in proportion as the true method of curing aneurisms has been fully understood—that is, the gradual lessening of the blood-current to final and complete coagulation in the sac—so have the means whereby this has been brought about, become simpler and more safe.

"The occurrence of these cases led me to the attentive consideration of the facts, as they are at present before us, connected with the purposed displacement of the contents of the sac of an aneurism, in the hope of plugging up either outlet: and the case of M. happened when a subclavian aneurism[1] was under my notice in another ward, about the treatment of which I was—to say the least of it—previously undecided.

"It seemed to me so impossible to limit the degree of force, short of extreme hazard, in the method originated by our distinguished *confrère*, Sir William Fergusson (*Medico-Chirurgical Transactions*, vol. xl. 1857); and I was not reassured by perusing the cases which he has recorded, or those of Mr. Pollock (*Op. cit.* p. 45).

"I cannot but regard the treatment by manipulation to be based on exactly similar principles to those on which the methods I have just alluded to are founded. No forcible pressure to detach fibrinous laminæ, in my judgment, ought to be used; as the result would be the almost certain separation of small portions of the clots, which would be carried into the circulation, and would eventually plug the smaller vessels, causing symptoms according to the functions of the parts which the plugged vessels supply. For I must own I have not been able to see how these clots could be located at either outlet, to be fixed by arrangement, as it were, at a spot where it is simply impossible to be assured that they could effect a lodgment. All that is necessary is, that the aneurism should be gently manipulated, so that the laminæ of fibrin in its interior should occupy a different position to that which they had previously held with reference to the two orifices of the sac; and in order that the blood should not be allowed to pass out of the sac too freely, if I have an opportunity, I shall endeavour to compress the distal artery in accordance with the principles I have been advocating.

"B., 32, a former Lifeguardsman, was admitted into hospital October 20th, 1870, with aneurism of three months' duration, in the second and third parts of the right subclavian. It was as large as a hen's egg, and accompanied by bruit, and by dilatation of the axillary artery. He stayed a month, during which time iodide of potassium was freely given; and then, frightened at the idea of an operation, he suddenly left. On January 20th, 1871, he was admitted again. The aneurism seemed firmer, giving me the impression that fibrin had been deposited. From February 10th to 14th, the sac was manipulated, night and morning, for a few minutes. The proceeding was one of the utmost gentleness and regularity, and consisted in making pressure with the thumb and finger, so as to slightly approximate its fibrinous walls, and, whilst thus limiting the circulation, probably rendering the clot surface somewhat irregular, and promoting the tendency to deposit already commenced. On the 11th, pulsation was much weaker. On the 14th, it ceased altogether. There was no brachial or radial pulse below the aneurism; and he complained of pain, extending downwards from the aneurism to the iliac region. This was constant, severe, and of a numbing character. There was no constitutional disturbance. During the following days the collateral circulation about the clavicle and shoulder developed itself; and especially noticeable was a large transversalis colli crossing over the aneurismal sac. On April 17th, he left for the Sanatorium, the sac being small and hard. Since this time he has pursued his business as a hawker, travelling all over England. I examined him, and so did my colleagues, as recently as the 19th of June, sixteen months after the cure of the aneurism, and I noted the following facts. A little induration marks the site of the aneurism; the axillary artery and upper part of brachial can be felt, cord-like, as far as insertion of coraco-brachialis—here pulsation begins, and can be felt, feebly, in the radial at the wrist. He is himself excessively thin, but well and hearty.

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[1] Pollock records three cases of direct compression applied successfully to subclavian aneurisms.—Guy's *Reports*, vol. xvi. p. 63.

"The absence in this case of any symptoms of paralysis during the four days in which the sac was manipulated, justifies the inference that no clot at least passed into the cerebral circulation, and I entertain myself the conviction that the cure was brought about by a steady process of lamination, rather than by a detachment of a clot, happy enough to fit into either orifice of the aneurism.

"I have now to call your attention to what I believe to be a not uncommon result of the cure of aneurism, after it has been effected for some time; I mean the formation of varicose aneurism or aneurismal varix. I shall first relate two cases. In 1844, my late colleague, Mr. Amphlett, tied the superficial femoral for an aneurism of the artery as it enters Hunter's canal. The patient was aged 41, and a soldier. There was nothing unusual at the operation, and the ligature was thrown off on the nineteenth day. Ten days subsequently, there was arterial hemorrhage from the seat of ligature. This recurred in ten days, and a third time in fourteen. Pressure on the arch was used, and the patient recovered. He remained well for upwards of three years, when a tumour formed at the seat of operation, which was evidently an anterio-venous aneurism. With this, coming under the care of my colleague, Mr. Baker (our President), he died with a drunken pleurisy, just five years from the date of the operation. I was fortunate in being able to dissect his vessels. The femoral artery had formed an aneurism at the seat of the operation as large as a hen's egg, and the femoral vein communicated with the artery by a large opening. The former aneurism was cured, and the artery between it and the seat of ligature was impervious.

"M., 50, a soldier, syphilitic and intemperate, became the subject of an aneurism of the upper part of the right posterior tibial artery. Pressure was made over the artery on the pubic arch, for three weeks; on it, below, for nine months. The aneurism was cured. Ten months afterwards, an arterio-venous communication formed at the chief seat of pressure, and the patient died in about a year and eight months subsequently. I had the opportunity of minutely examining his body, and I came to the conclusion that pressure on the pubes induced varix in the femoral vein, at the situation of the saphenous opening; that this subsequently, sustaining pressure, enlarged and became adherent to the artery, and finally, by a succession of changes, readily comprehended, between a diseased artery and a diseased vein adherent to each other, ended in establishing an aneurismal varix.

"At the time when I published this case, which was done at considerable length in the *Medico-Chirurgical Transactions* for the year 1861, I attributed the results merely to the injurious effects of long-continued instrumental pressure, producing morbid changes around and between the contiguous vein and artery; and I was inclined to quarrel with Bellingham's remark (*Medico-Chirurgical Transactions*, p. 12), 'That no morbid change of any kind takes place in the artery or vein at the site of instrumental compression.' Subsequent reflection, however, and an attentive study of the preparations, have led me to seek a different explanation. Thus, in consequence of the diseased conditions and diminished elasticity of the arterial walls, which almost constantly exist in all arteries above the seat of an aneurism, the velocity of the blood-movement is considerably retarded. It is evident that this retardation must be materially increased by the obstruction at the seat of ligature, or the seat of long-continued instrumental compression. The immediate consequence of this retarded velocity is an increase in lateral pressure. This dilates the diseased coats of the artery into an aneurism, which—by the usual processes of pressure, absorption and disintegration—opens into an adjoining vein. Sometimes, as in the second case I have adduced, the opening is effected directly into the vein without the previous formation of an aneurism—and the vein subsequently becomes varicose by the passage of arterial blood into it."—*British Medical Journal*, August 10, 1872.

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28. *Modern Treatment of the Advanced Stages of Constitutional Syphilis.*—Mr. WM. ACTON read the following paper before the Surgical Section of the British Medical Association, mainly with the view of eliciting from M. Ricord, who was present, a statement of his *present opinions* on the important question of the treatment of syphilis.

Mr. Acton remarked, "On what constitutes the virus of syphilis, I fear we know little more at present than we did thirty years ago. Experience, however, has corroborated M. Ricord's observations, that relapses of constitutional syphilis are not uncommon even after long periods of apparently perfect convalescence. These accessions of disease we may attribute sometimes to neglect of treatment; but we must admit, likewise, peculiarities of constitution and temperament as bearing on the tendency, which, in spite of the best regulated treatment, will be followed by relapses. In other instances it is noticed that any general disease which will debilitate the system may be followed by an attack of constitutional syphilis, which without such debilitating cause would never have occurred. The old theories about the influence of *ferments* seems to be borne out by some of these exceptional cases.

"Practitioners, however, will agree with me that, in the present day, in some of these rebellious cases patients and medical men both lose confidence in remedies, and there are those among us who, after seeing such relapses, doubt if it be the effects of syphilis or mercury which we have to treat in these advanced cases.

"The *treatment* should consist in ameliorating the symptoms, commencing with those that are most urgent. We should attempt to improve the broken-down constitution, too often found in these instances; if mercury have been given, we must leave it off till the constitution has somewhat recovered. Our object should be to place the patient in the best possible condition as regards air, diet, and freedom from anxiety, and, if possible, to give him confidence that the disease is curable, for the moral and mental depression to which the patients are reduced is often very painful to witness.

"This being done, I commence with tonics and iodide of iron. If there be ulcers, I treat them with the ointment of nitric oxide of mercury. If the throat and voice be affected, topical applications must be used. If osseous or periosteal tumours exist, iodine or blisters should be applied to reduce the size of the swellings and prevent disfigurement, or pressure on the brain or spinal cord. This local and general treatment will act almost as by a charm in relieving sleeplessness and pain in the bones and joints.

"In the commencement, notwithstanding that iodine may have been taken (according to the statement of the patient) without previous benefit, I commence the syrup of iodide of iron in bitter infusion, taken at meal-time in moderate doses. As long as the remedy tells on the constitution, I adhere to moderate doses; but as soon as convalescence tarries or progress is not made, I increase the dose even to two drachms three times a day. When the system becomes tolerant of these doses, I change the syrup for the iodide of potassium in solution, beginning with ten or fifteen grain doses, taken at meals and dissolved in large quantities of fluid.

"The subsequent treatment should be guided not by the number of grains given, but by the effect which the remedy has on the complaint. As soon as the disease ceases to retrograde, I augment the dose with the best possible effect. When the preparations of iodine and potash cease to benefit the best patient, I add bromide of potassium, not in combination with the iodide, but prescribe it at a different time of the day. It frequently happens that we succeed in curing the disease with these salts, but if the complaint be very persistent, if relapses occur after short intervals, I no longer hesitate to give mercury, and my hearers may be glad to learn what are the indications we follow in the administration of the remedy.

" *Treatment with Mercury.*—As a general rule, it must be admitted that mercury is not required in the treatment of the advanced stages of constitutional syphilis. In fact, we attempt to cure our patients without resorting to the mineral. On the other hand, there are many instances in which the recovery hangs fire; the patient ceases to improve even under large doses of iodine. The disease becomes stationary. Yet such are the objections of some practitioners to a course of mercury, that, in spite of the recrudescence of severe symptoms, the anti-mercurialist will not give mercury in any form. This is an error of the day. The rule which experience teaches us is that, if a relapse occur, or if the progress of recovery be arrested, after the various preparations of iodine have failed, some of the mercurial preparations must be had recourse to, judiciously given and closely watched. In some cases, friction with mercurial ointment will be most beneficial; and I must admit that in England I find the old plan of rubbing in mercury answer better than almost any other that I am acquainted with. There are those who employ fumigations. M. Ricord is very partial to a prescription combining biniodide of mercury, iodide of potassium, and sarsaparilla. In these stages, the writers of the last century had a high opinion of corrosive sublimate; but this irritant poison has fallen into disuse in modern practice. Those of my hearers who are acquainted with the writings of the older authors on syphilis need not be reminded of the almost miraculous recoveries detailed after giving mercury, long before iodine was known; and it is stated that the patient never had a relapse. These old writers, however, omitted to state how often the remedy not only failed, but brought the patient to an early and untimely grave. I can bring to my recollection many instances which, I have every reason to believe, died from the administration of mercury given on the old plan, and which would now be rescued by the mercury being preceded by the different preparations of iodine.

"If mercury be found beneficial, as I am sure it will be, if judiciously given and carefully watched, and the symptoms of syphilis subside, the preparation should be persisted in till every vestige of the disease disappears. The dose required is sometimes surprisingly small. I have known obstinate symptoms, which have withstood iodine, disappear in a week. In a case now under my care, of syphilitic nodules of the testis, a six weeks' course of frictions has been required to enable the testis to recover its former elastic feel, and its functions are now performed satisfactorily. It is singular to notice in these cases how the general health improves under mercury. The patient loses the habitual earthy expression, becomes florid, and gains flesh; his spirits improve as the local affection declines, and he ceases to be liable to relapses."—*Brit. Med. Journ.*, August 17, 1872.

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29. *Treatment of Syphilis.*—The reading of the above paper drew from M. Ricord the following speech:—

"There is one question which comes before the medical man very frequently: Can syphilis be cured radically? That is the question which we will consider. There is an immense quantity of venereal disease cured—clap, swelling of the glands, soft chancres, warts—all these 'accidents,' not belonging to syphilis, and not associated with secondary symptoms, being radically cured. Since these have been distinguished from real syphilis, there have been great differences in the treatment of them, and they have been radically cured. Doubts have been raised whether real syphilis can be radically cured; and those doubts are not new. Mercurialis thought that it was liable, even after the lapse of years, to break out again; and the doubts remain in the minds of many whether it can be cured radically, or whether it can be cured only temporarily. Well, that doubt may remain until I establish before you that the law regarding syphilis is the same as the law regarding the smallpox, measles, and such like. You can have at the one time only one smallpox, only one cowpox; and as, just so long as the cowpox influences the system, you cannot have another smallpox or another cowpox, so in syphilis; for, as long as the patient is suffering under the syphilitic diathesis arising from an indurated chancre, he cannot have another indurated chancre. The application of this law is that, while a man is suffering under the effects of secondary symptoms, he cannot have a chancre of an indurated character; so that if you want to know whether the system of a man is altogether free from syphilis, you can do so by inoculating him with an indurated chancre; if it take, he was free; if not, he was insusceptible. That is a great point to be reached in the science of medicine. I say, and say distinctly, that syphilis can be radically cured.

"Now as to the case of syphilis in the first stage—the primary sore. You have first to find if this be really the hardened chancre, and it comes with the swelling of the glands; but with it the glands never suppurate. I at once institute the mercurial treatment. Now, there is one point here upon which there is a difference of opinion, for some think that you cannot prevent the secondary symptoms; but I say that if the treatment be well done and soon done—and this is most important—you can prevent the first bursting out of the secondary symptoms. Why it is not prevented is, that the treatment is applied too late in the first instance, and the secondaries often come before the treatment of the primary is commenced. But if you make the treatment of the primary early and effective, the secondary will not appear; I can give you warrant for that. The best treatment for the secondary symptoms is the mercurial, and it must be continued and continuous. In Germany, and in other places as well, the treatment of the secondary symptoms is not continued long enough. You should choose a treatment which does no harm to the constitution, and continue it for five or six months, and you will have very few cases of relapse; and, after the mercurial treatment is finished, go on for another six months with iodine. When a person comes to me, I tell him that he will have to continue under treatment for twelve months. If he will, he will; but if not, then I say at once 'good-bye.' But then, you know, there are complications. The treatment I have given you is for syphilis arising in a person who is otherwise healthy, and there is then but one enemy to fight against. But in other cases you may have, in addition, scrofula, or an otherwise bad constitution. Well, then the case is not the same; for many of these constitutional disturbances are interfered with by the syphilitic treatment. In many of these cases, the syphilis is the second thing to look at, and you must begin with the constitutional disease first; you must attack the strongest enemy first, and he sometimes waits until you come to him before he opens his attack. Then you must come on gradually with your syphilitic treatment; and that which I prefer in complicated cases is iodide of mercury, which causes little diarrhœa. One capital treatment is that of rubbing in—it is easy and effective. But there are cases in which the rubbing cannot be employed. In the next stage, I employ iodide of potassium. I use large doses of this, up to 60, 70, 80, and 100 grains a day, and even more. I have made experiments with this; and I have found that, half an hour after the dose has been given, it has passed through the urethra; and it is in reality a sort of broom to the blood. The supply must be kept up. In secondaries, a treatment partially of this iodide and of mercury has its advantages. I have had the potassium stop doing good, and I have gone back to the mercury with good results. That is what Mr. Acton has said, and I quite agree with him. When syphilis has lasted a long time, and has had great effect upon the constitution, it somehow disappears, and leaves the patient suffering from a complication of diseases which may have been existing before. Well, then, you must stop all syphilitic treatment, and repair the deterioration of the blood by iron and bark. Mr. Acton spoke about the use of bromide of potassium; and I agree with him in its use, for it is a splendid remedy for a complication of syphilis in some cases—in syphilitic diseases of the brain and nervous system; but you cannot depend upon it as an antisyphilitic remedy.

"Now I would impress you that you can tell your patients that this terrible disease can be radically cured if they have the courage sufficient to go through the treatment, and their physician have the courage to go through it with them. I again thank you for the cordial reception you have given me."—*Brit. Med. Journ.*, Aug. 17, 1872.

30. *Treatment of Syphilis by Means of Hypodermic Injections of Corrosive Sublimate in the form of a Chloro-albuminous Solution.*—Dr. Staub, of Paris, has published, under the above head, the results of a most interesting series of experiments. The object of Dr. Staub was to avoid the local accidents caused by hypodermic injections of sublimate, and also to be able to employ stronger doses. This he effected by means of an albuminous solution of sublimate in alkaline chlorides, according to the principles laid down by Gubler, Mialhe, Barensprung, etc. The formula for injection deserves to be carefully noted. Sublimate and chloride of ammonia, of each 20 grains; chloride of sodium, about 62 grains; distilled water, 20 grains. After filtration the whole is mixed up with an albuminous solution (white of an egg, water 4½ drachms). This mixture produces no local inconvenience; it contains 5 milligrammes (about $\frac{1}{13}$ grain) to every 20 drops. The results of treatment, states Dr. Staub, have been very favourable. In the forty-four cases related the duration of treatment varied from seventeen to thirty-four days, with one centigramme ($\frac{1}{6}$th grain) of sublimate injected each day. The author comes to the conclusion that the hypodermic method, with the chloro-albuminous solution of sublimate, can and ought to be transformed into a general mode of treatment of syphilis; that it will take the first place in the therapeutics of syphilis; and that it may be applied to all cases (syphilitic or not) where a mercurial treatment is indicated. —*The Lancet*, July 20, 1872.

31. *Strictures of the Urethra.*—The following instructive remarks by Prof. Oliver Pemberton (Address in Surgery before Brit. Med. Assoc., Aug., 1872), on this subject, will, we are sure, be read with interest.

"It is to me remarkable, but it is true, that the views entertained by the highest surgical authorities of the day, differ on no subject so widely as on the particular system they adopt and recommend in the treatment of stricture. Simple dilatation and rest, I am thankful to say, have had a great following, and, if I mistake not, will yet rise into higher position. The main quarrel is between the advocates of internal as opposed to external division. The late Professor Syme (*Stricture of the Urethra*, p. 21, 1855) thought he had effectually put an end to the use of those 'dreadful engines,' as he termed M. Reybard's instruments; but he was mistaken, for strictures of this day are both cut, split, and torn; and new engines for the purpose multiply, as if the great surgeon had never lived to speak of plunges in the dark with caustic, or of ripping open the urethra by internal section.

"Stricture may fairly be defined to be a diminution of the normal diameter of any portion of the urethral canal; and as it must be admitted that the existence of any stricture, however slight, from whatever cause proceeding, and of whatever nature, may sooner or later give rise to serious consequences in the condition of either the bladder or kidneys, it is needful for the physician to discover it and cure it as soon as possible. But the real question is in reference to this word cure. Have we to deal with a simple stricture that has resulted from inflammation of the lining membrane of the urethral canal, or with a stricture, originally of this kind, which has been aggravated and increased in extent by ill-considered surgical proceedings?

"For the first, there is a cure by simple dilatation. For the second, there properly is no cure. Once organic stricture, always organic stricture, is my belief. Whenever the lining membrane of the urethra has been injured, whether by accident, disease, or by bad surgery, the spot will contract and establish permanent stricture, and I do not believe that the materials constituting such cicatricial narrowings are ever absorbed.

"If you endeavour to restore the normal calibre of the urethra under these conditions by ever so well considered a system of dilatation, my opinion is that the contraction will return sooner or later with increased vigour, the natural elasticity of the canal being gone; in other words, dilatation will not effect a cure, and never does effect a cure.

"But dilatation, if it be well and properly carried out, will protect the patient against the occurrence of those diseases which, dependent on individual health and mode of life, arise either rapidly or slowly in all cases of stricture. The degree to which it is necessary to carry this may fairly allow of discussion; for I have ever before my mind the conviction that the very means made use of to effect the so-called cure, may become the certain cause of the continuance, and, in many cases, of the increase, of the malady.

"I think it will be admitted that the tendency to narrowing in cases of stricture, differs very markedly in individuals. Some may show few signs of change during many years, others, especially those arising from the effects of laceration by direct violence, certainly, surely, and often rapidly increase. In all cases, treatment by dilatation is necessary; but I doubt myself whether it is needful always to endeavour to restore the standard of the canal to the utmost of its original extent. I believe that there are many cases which admit of being maintained at a standard short of this, depending, however, on the facility with which the contraction yields, and its rate of increase subsequently. And it must never be forgotten that when once this treatment by dilatation has been commenced—no matter how carefully or how thoroughly it may have been done—it will have to be continued, whether at the hands of the surgeon or of the patient, more or less during life.

"For my own part, time being given, I do not believe that there is any stricture through which an instrument cannot be passed by a skilful surgeon. This being so, treatment by gradual dilatation follows; and in my judgment this should be by the silver catheter, as the safest, the simplest, and most certain instrument in the greatest number of hands yet given to us, *bougie à boule* and *bougie olivaire* notwithstanding. If the induration be cartilaginous non-dilatable, or if there be fistula, the treatment by external division on a grooved staff should be adopted as speedily as possible.

"Entertaining this view of the permanence of the changes established in the urethra by injury or disease, I am not very likely to favour any internal severance of the lining of the canal, whether by Mr. Holt's method of so-called 'splitting,' or by any form of internal cutting. I believe a wound is produced just as much in the one case as in the other. I regard those methods as artificially inducing the very conditions which I lament should result from almost unavoidable causes; and I further believe that a shut-up wound on the internal face of the lining of the urethra, is attended by dangers, from which an open wound on the outside face is comparatively free.[1] I have had occasion to divide the urethra after Professor Syme's method in upwards of thirty cases. In one case only was there a fatal ending, and this from pyæmia. In no case was there a relapse, provided that an instrument was passed from time to time, the frequency of this being determined by individual tendency to re-contraction, once a month to once in three months being about the average; and by this means the calibre of the urethra was without difficulty maintained at its original standard. All the cases that I have seen, save one, have required this continued resort to dilatation, and will require it, in my judgment, more or less, during life. For there is no more a cure by this, than by dilatation or splitting. In the case that did not require it a fistula remained permanently in the perinæum, letting through a little urine, the general stream flowing by the urethra, which at the end of twelve years shows no disposition to contract.

"If the induration of the urethra, and narrowing, be of such an extent as to preclude the idea of dealing with it by external division, I prefer to tap the bladder by the rectum. I do not feel inclined, at present, to divide from the bulb to the meatus: and this literally must be the length of an incision in many of these long-standing cases, if the entire disease is to be dealt with.

"There are numbers of these inveterate cases wholly unsuited to external division; but they are eminently calculated to be dealt with by a method which deviates the course of the urine to another channel, in order that the rest may heal the fistulæ, and absorb much of that adventitious material blocking up the natural urethra, which can then readily be found, and have a standard established almost without resort to dilatation.

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[1] I will, with Sir H. Thompson, admit its use in narrowings at the external meatus.—*Pathology and Treatment of Stricture.* Third edition.

"I frankly say that I do not believe that either internal or external division of any urethra will cause the healing of fistulæ in the groin, buttock, and perinæum, where a man passes his urine, as it has been graphically described, like a watering pot. (See Discussion: Medical Society of London: *British Medical Journal*, November, 1870, p. 590).

"Surely relief by the rectum will stand comparison with all the manœuvres that have been suggested from the days of Hunter to Grainger, and from Grainger, who, by the bye, belonged to us here, to Gouley and Wheelhouse. I cannot conceive why a patient is to sustain—sometimes for hours together—the distress belonging to hopeless attempts made to trace, in that stage of the disease, an impracticable canal, when the chief cause of the malady—the flow of urine—can be reached and diverted in a moment. Since Mr. Cock published his views (*Medico-Chirurgical Transactions*, vol. xxxv. p. 153), now just twenty years ago, I have had many opportunities of seeing the results of this proceeding.

"I am able confidently to state that it is wholly free from danger. Indeed, I can scarcely conceive death following as a direct result of the operation. So little fear of the proceeding had one of my patients that he has been tapped at least six times for the relief of fleeting attacks of retention, dependent on a rapidly distended bladder, unable to empty itself in the presence of long standing organic stricture. I have seen him almost within a day or two afterwards as if nothing had occurred. Further, no fistula remains, for the opening in the rectum invariably closes after a few weeks.

"I have left in the silver canula for three weeks, and have not found inconvenience from its presence; indeed, it appears to me that one of the greatest arguments in favour of its adoption exists in the fact of the position of the canula, which, whilst certainly securing the emptying of the bladder, is wholly removed from the urethra. I am strongly myself of opinion that many urinary cases terminate fatally from urethral irritation, set going and kept up by an instrument retained in the canal in its length.

"Some persons are very tolerant of tied-in catheters, whilst others, dependant on a certain idiosyncrasy, cannot sustain with impunity the simple introduction of an instrument. I saw a case in a young man which all but ended fatally from epileptic convulsions, induced by a first catheter; whilst the single introduction of a lithotrite in a man of 77 to measure a large smooth stone that had been carried with impunity for years, set up such an attack of cystitis that death ensued. I was very much impressed by a case in which a man, suffering from complete paralysis from the bladder downwards, owing to concussion of the spine, had a silver catheter tied in his bladder. He appeared sinking fast, and the most profound irritation of the bladder was established. I directed the urine to be drawn off every eight hours, and he began from that moment to amend, and ultimately recovered. Here, doubtless, the true explanation lay not in idiosyncrasy, but in the fact of the existence of disease from the injury. You may leave an instrument in the bladder for years from the perinæum, but you cannot do this with impunity and traverse the length of the urethra. Morbid sympathies become excited in connection with the urethra, which are not produced by the introduction of instruments into other mucous channels.

"In what I have said, I have urged the adoption of tapping by the rectum, as affording assured relief to the most inveterate forms of stricture. And in considering the treatment of this disease, I have hitherto limited my observations to cases of stricture of the urethra *per se*, not to those complicated by retention of urine. I must equally urge it, however, as the remedy most reasonable for almost every form of retention. It is the absolute cure of spasmodic stricture: and if, in any given case arising from this cause, after one good effort has been made to obtain relief by ordinary means, there is no success, it should be carried into effect. If retention be present with an impermeable urethra from organic stricture, a double necessity supports its selection, whilst I have yet to learn that it is inadmissible in the retention of old people from enlarged prostate. I know that it can be accomplished in these cases, but of course not so readily as if the rectum had only its ordinary contents; and I am quite satisfied that far less irritation would be produced in the majority of these diseases, where death so often directly results from the effects of instrumental measures, by the presence, at the most depending part of the bladder, of a harmless tube, calculated to secure the removal of all urine secreted, and thus master that inevitable decomposition which is not overcome by any other method in use, for the simple reason that one and all fail to empty the bladder. If the membranous urethra bulge behind a stricture, or if an abscess opened in the perinæum suggest a ready path to the bladder, by all means let a female catheter effect, through the perinæum, what otherwise, I maintain, can be accomplished by the rectum.

"Some years ago I asked the question, 'Can the urethral canal be permanently restored whenever any complete and considerable portion of its length has been entirely destroyed?' I believe the answer must yet be 'No.' I had then a boy of sixteen, with at least two inches completely destroyed by burning; and, believing this, I established him with a silver perinæal tube, through which he now (aged 27) passes his urine without trouble; but there is nothing in the growth of the parts that tempts me to interfere, for I know the whole circle of the canal must be gone.

"I think, however, that if only a streak of mucous membrane lingers about the part, an efficient connection can be re-established even after the lapse of many years.

"I saw in the early part of this year a patient, aged 30, who had sustained, eighteen years previously, such a laceration, that two inches below the meatus was a fistulous opening into the urethra, three-quarters of an inch long. The canal was pervious from the meatus to about one inch above the bulb, where was a second small fistula; then, the canal was obliterated for an inch, and a third fistula, placed just at the commencement of the membranous division, gave exit to all his urine. For eighteen years, then, the urethra from this spot had been unused. I first closed the penile fistula, paring the edges, which looked beautifully in apposition for some days, and then came apart as usual. But by clipping the penis with a self-acting spring, on the principle of the *serre fine*, the edges were admirably united. Then I laid the lower fistulæ into one, dividing all the hard textures between them, and passed an eight catheter, and for forty-eight hours tied it in the bladder. After this I passed nine daily. The patient learned to pass it in a week himself; and at this time the canal is in excellent order, with the introduction once a week. Now, I do not think the roof of the urethra was destroyed here, and hence the reason of a success which I did not expect.

"In reference to the repair of penile and scrotal fistulæ, I would remark that they can alone be treated satisfactorily by the urine being drained through the rectum, or, as here, through the perinæum. Even then, union by first intention is a myth; but union can be obtained by keeping the granulating edges together by some artificial means, at the same time that vivacity is maintained in them by the use of the acetum lyttæ.

"And now, permit me to indulge the hope that the illustrations I have been enabled to place before you of modes of practice have not been devoid of interest."—*British Medical Journal*, August 10, 1872.

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32. *Lithotomy.*—Prof. O. PEMBERTON states (Address on Surgery), "Up to the early part of the year 1868, I had invariably performed the lateral operation of lithotomy in all cases and at all ages, and had encountered that good and ill luck that always, sooner or later, disturbs the statistics of the most successful or the most unfortunate of operators who take all that come before them. I had reached my sixtieth case. Of this number, thirty-five were under twenty years, and but one had died from the operation—a child of four, a complicated case, with stone both in bladder and urethra. On the remaining twenty-five, four had died at 79, 59, 56, and 53. Surgically, there was nothing to be regretted concerning these, save their deaths; for about them all were condi-

tions favouring a bad rather than a good ending—conditions that happen with stone, at all times, and to all people, and will happen again; so I need not touch on them further now.

"In all this I had used the single knife and the laterally grooved staff, and I did not think then I should use any other instruments as long as I continued to operate. But what happened? I cut a boy of eleven, and extracted an ordinary-sized stone, without, apparently, complication of any kind. Hemorrhage followed, of such severity that it was with difficulty controlled, and death from its immediate effects took place within twenty-four hours of the operation. I could find nothing in the *post-mortem* examination to account for the bleeding. It is true he had but one kidney, but that had nothing to do with his death. It was clear the cutting did it somewhere; and I naturally thought I should like, in the future, to extract such a stone as the one I then removed with less of the cutting in the dark, if possible. Accordingly, I turned to median lithotomy. Allarton, who practised near here, had delivered a lecture on the subject of lithotomy simplified, in the Sydenham College, in 1854; and I was much struck by his arguments as to the capability of dilating the neck of the bladder without incision. I felt satisfied that, for bladders within reach of the finger, and for small stones, if not for all, there should be escape from the fear of uncontrollable hemorrhage, though I had never tested his proceeding in the living subject. Since, I have had an experience of twenty-five cases. Of these, twenty have been of ages from two to twenty years, with not a single death. Of the five, of ages from forty-six to sixty, one died of peritonitis.

"I perform the operation in the following way. I open the urethra, just behind the bulb, on a centrally grooved staff. Along this, I pass into the bladder a tapering probe-headed gorget, withdraw the staff, and, taking hold of the handle of the gorget, pass the finger gently along its groove into the bladder, letting it dilate as it goes, and so take the place of the receding guide.

"Now, I know that many believe that this dilatation means laceration. It has, inded, not very long since been described as 'complete rupture and laceration' (Mr. Teevan: *Lancet*, vol. ii. 1870, p. 237), and as 'unsurgical and dangerous.' I answer this statement, which I venture to characterize as eminently reckless, by a positive contradiction as to facts.

"I have cut enough cases by the ordinary lateral method, and am still cutting them, to know the difference between laceration and dilatation. I am quite satisfied that my finger passes into the bladder without laceration in the operation I have described. I feel the entrance gradually narrow itself into a mere ring, which encircles and equally grasps my finger on all sides. Through this ring pass the forceps; through this ring passes the stone, and any number of stones, or any fragments of stones; and there is no laceration, unless the stone be too large for the proceeding, or violence have been used.

"I hold that it cannot be necessary to make incisions to the same extent to remove a body the size of a pea, as we should make for one of the size of twenty peas; and, further, my conviction is that, whilst in all ordinary dangers, the median operation as compared with the lateral, is simply equal, in two it is immeasurably less. These are the dangers from hemorrhage, and from prolonged recovery. The danger from hemorrhage in the median operation can only arise from a central wound of the bulb. It is not unlikely to take place, and did occur to me once in the twenty cases, and was readily arrested; for it must be borne in mind that the source cannot be far away, and so happily cannot require the use of that most hateful of all appliances—a plug for the wound. As to recovery, the exception is to find any constitutional disturbance at all. The urine is retained and passed naturally. I would like to ask if any one ever knew a patient pass his urine naturally with a 'lacerated' neck of bladder? and the wound is healed mostly within a fortnight.

"I shall be prepared for it to be said of my advocacy of median lithotomy—'The statistics of your own cases are against you.' My answer is, 'Statistics are not everything.' A case may end just as successfully one way as another, though the troubles on the journey differ widely, and no one will question that lateral lithotomy in children is eminently successful. But every operator who has sufficiently tried any given two methods of procedure, has a right to say which of the two he prefers; and therefore it is that I say, when I reflect on the anxiety that I endured in watching the threatenings of mischief in children cut by the lateral operation, I rejoice that I have cause for it no longer, notwithstanding the general good fortune that attended my practice with that method.

"And now as to the cases where the median operation should not be selected. In any instance where the finger is not likely to reach the bladder, so that instrumental dilatation would be required, the lateral operation should be preferred. The reason I use my finger is because I have more control over it than over an instrument. I can regulate the one, not the other. I would sooner cut than lacerate at any time, and I consider that the use of instrumental dilatation in this operation means laceration. You may use it, on and off, with impunity, but it is a most destructive instrument—reviving all the dangers of the discarded Marian. I attribute the peritonitis, which carried off my single fatal case, solely to the laceration of the neck of the bladder that of necessity followed its use. I repeat, the only dilator must be the finger, and so long as the neck of the bladder can be widened by this sufficiently to allow of the removal of a stone without laceration, I shall deem it a part of my duty to advocate the adoption of this form of median lithotomy.

"I hope, however, my observations will not be misunderstood. I am second to none in admiring what Cheselden practised, and what Liston and Fergusson have brought to perfection—the lateral operation for stone. I have been surrounded during the whole of my professional life by teachers and colleagues who have had unusual opportunities for practice, and who have realized brilliant successes in this very operation; but, in my opinion, it is not the most desirable operation to perform for all stones, at any age and under any circumstances, as some would have us believe."—*British Medical Journal*, August 10, 1872.

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33. *Subperiosteal Resection of the Elbow.*—M. **OLLIER**, of Lyons, has just made known the results of subperiosteal resection of the elbow in forty-eight cases, twelve of which were traumatic, and the others caused by chronic arthritis. M. Ollier states that, with proper care and skilfulness in dissecting the entire periosteal sheath, the bones are not only reproduced in their continuity, but with their heads and articular tuberosities, so as to permit the play of the joint in all its movements. It is necessary to employ minute precautions in the after-treatment for obtaining the above results. Slight movements must be made at an early time with the joints. Anchylosis is not to be dreaded, but rather too great mobility of the joint, especially in individuals of from forty to fifty years of age. In these cases the bones must be cut to a certain length, so as to avoid such mobile articulations.—*Lancet*, August 24, 1872.

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34. *Traumatic Tetanus successfully treated with Chloral and Bromide of Potassium.*—Mr. **ALEX. FERGUSON** reports (*Edinburgh Med. Journ.*, July, 1871) a case of this. The subject of it was a man, æt. 20, whose hand was injured by a circular saw. "The injury was of such a nature as to necessitate my amputating the thumb close to the hand. The operation was done under chloroform, and dressed antiseptically with the utmost care. Under this treatment it cicatrized kindly until the morning of the tenth day, when I was urgently called to his house. I found to my horror the jaws firmly clenched, the characteristic 'risus sardonicus' distinctly marked, and the body slightly opisthotonic. The wound was inflamed and painful, and the healthy secretion dried up. A large linseed poultice, slightly carbolized, was applied, and 30 grs. of chloral hydrate given, its sedative effect being promoted by a whiff of chloroform. In the evening, symptoms aggravated, the opisthotonos being more complete. Repeated the chloral, increasing the dose by 10 grs. Next morning patient is decidedly better, complains chiefly of præcordial pain extending through to the back, and probably diaphragmatic. Continued the chloral treatment as follows: 40 grs. ter in die, alternately with 30 grs. bromide of potassium bis in die, to every dose of which are added 10 grs. of chloral.

Under this plan of treatment, the effects of which resembled chronic alcoholism, the spasms were kept at bay. The only additional treatment was the hot bath with mustard for the first four nights. . . . . There is one incident of pathological significance that occurred in the management of this case. One morning, when dressing the wound, I passed my finger along the cicatrizing surface to repress exuberant granulations. It came in contact with a sharp point. This I found on examination to be a small sequestrum of comminuted bone, the removal of which was followed by rapid cicatrization, and a very marked remission of the symptoms. Such was the treatment exclusively adopted as far as medicine is concerned. The dietary consisted of farinaceous articles, with beef-tea and milk, and small quantities of whiskey and soda-water.

"During four weeks this patient took 120 grs. daily of chloral, and 90 grs. bromide of potassium (in the aggregate, 3600 grs. of the former, and 2700 grs. of the latter), without any appreciable effect on the general health beyond transient loss of memory, and the ordinary manifestations attending intoxication. He is now able to walk through his room, but until every sign of spasm has disappeared, he will continue to take the chloral."

35. *Aspiration of Morbid Fluids as a means of Diagnosis and Treatment.*—Dr. Dieulafoy, in a communication to the Academy of Sciences, June 24, 1872, sums up the results of the various interesting experiments which he has been conducting for two years with his capillary aspirator, an instrument which is now being extensively used in Paris with the very best results. M. Dieulafoy strongly insists on the use of the aspirator as a means of diagnosis and treatment. It serves, in the first place, to show with certainty the presence, seat, and character of various pathological fluids, and also to dry up the source of such fluids. Dr. Dieulafoy, emboldened by the results obtained, does not hesitate in asserting that it is always possible to reach with certainty, and with no kind of danger, any collection of liquid, whatever may be its situation and its nature; that the aspirations may be frequently repeated in the same position without any inconvenience, and almost always with the effect of drying up the source of the fluid. He lays down the following law as the result of his experience: When a fluid, whatever may be its nature, gathers in a serous cavity, or in any organ, and when that cavity or that organ is acessible without danger to the patient, our first care should be to withdraw that liquid; if it again forms it must be again withdrawn, repeating the operation frequently, if necessary, until the serous membrane is exhausted by a purely mechanical and quite inoffensive means, and without attempting to modify the secretion by irritating and sometimes dangerous agents.

The following is a list, divided into three groups, of the various diseases to which M. Dieulafoy's aspirating method has been applied: 1. Fluids accumulating in a serous cavity: hydrocephalus, hydrorachis, pleurisy, pericarditis, hydrarthrosis, synovial cysts. 2. Fluids formed in the deep parts of organs: abscesses or hydatid tumour of lungs, abscesses or hydatid of liver, liquid tumours of the spleen and of omentum, ovarian cysts, retention of urine, strangulated hernia of the intestine. 3. Liquids formed within the cellular tissue of various regions: congestive abscess, bubo, perinephritic phlegmon, iliac phlegmon, periuterine phlegmon.—*Lancet*, August 24, 1872, and *Rev. de Thérap. Med.-Chir.*, August 1, 1872.

36. *Strangulated Inguinal Hernia Reduced after Aspirating Puncture.*—Dr. Léon Labbé, Surgeon to the Hôpital La Pitié, communicates to *The Lancet* (July 20, 1872), the following interesting case:—

In the night of June 20th, Mr. D., aged seventy, an exceptionally strong and robust individual, after a violent fit of coughing felt an intense pain in the right inguinal region. This was followed in a few minutes by nausea and vomiting; whilst a somewhat large tumour showed itself in the right inguinal region.

On the 21st, at 6 P.M., I first saw the patient, together with his ordinary medical attendant, who had employed taxis with great care but to no effect. I then tried taxis myself, but was equally unsuccessful. The nausea and vomiting still continued; pulse 75. Taking into account the circumstance that strangulation dated only about eighteen hours, and that probably the anatomical lesions would be very slightly advanced, I without hesitation proposed puncture with the aspirator, and without further delay I introduced the No. 2 needle. About ten grammes (two drachms and a half) of a yellowish liquid immediately escaped, together with a quantity of gas which I cannot exactly estimate. The tumour, which was as large as the fist, flattened immediately; and a very gentle pressure exerted for one minute near the neck of the sac caused complete reduction of the hernia. The patient felt immediate relief, and expressed his satisfaction. During the few hours which followed—from 6 to 11, and more especially between 8 and 11 P.M.—there was a little vomiting, and more particularly nausea. The patient was somewhat feverish, and had slight rigor. I had administered, as I always do after reduction of hernia, whether by taxis or operation, pills of the gummy extract of opium (each containing one centigramme—one-sixth of a grain—to be taken one every two hours, so that ten or twelve centigrammes may be absorbed in twenty-four hours), with the object of bringing on paralysis of the intestines. At 11 P.M., the symptoms above alluded to all disappeared, and from that time the patient enjoyed the most complete comfort.

June 22. Pulse 60; countenance normal; scarcely any tenderness in the abdomen over the inguinal region.

23*d*. Three natural stools; no pain or fever; appetite excellent.

Eight days afterwards the cure, which had been evident even on the third day, had become quite permanent. The patient's health is now excellent.

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37. *Case of Gastrotomy.*—Dr. FRANCIS TROUP records (*Edinburgh Medical Journal*, July, 1872) a very interesting case of this. The subject of it was a man, æt. 50, who suffered from loss of appetite and gnawing pain at the epigastrium after taking food. For a year afterwards, vomiting of bloody-looking fluid containing particles of food set in. No treatment relieved these symptoms; the quantity of food rejected increased; blood was brought up in small nodules, like "boiled liver," as patient described it; and the act of swallowing was slowly performed, and excited a peculiar suffocative cough.

No tumour could be felt, but a bougie passed down the œsophagus encountered a constriction at lower third of sternum; when this was passed, a second, an inch or so lower; and then it found free entrance into the stomach.

During many months, nine at least, attempts were made to keep the passage open by bougies, the patient himself learning to introduce them; then, as increasing difficulty of passing them was experienced, elastic catheters of gradually-diminishing calibre were tried, and a certain amount of food introduced in this way. Nutrient enemata were also freely used. By and by the canal became completely closed, and there was constant hawking and coughing up of clear, tenacious, ropy mucus, and for a month before death patient was almost entirely supported by the enemata. During the first part of this month patient complained much of hunger; during the last fortnight, only of a thirst, which was something dreadful to bear. He was anxious to live, if possible, or, at all events, to have something done to relieve this tormenting thirst.

Dr. T. explained to him that it was possible to open the stomach and to introduce nourishment; but that this could not possibly cure him, and might speedily prove fatal; but if he survived, his thirst would probably cease. He decided upon the operation, which was accordingly performed by Dr. T., assisted by Dr. David Lyell and John Lyell. "A straight incision, three inches long, commencing a little below the extremity of the xiphoid cartilage, was made to the left of the middle line of the abdomen, and midway between it and the costal cartilages. The thin abdominal walls and peritoneum were easily cut through, and, guided by the liver edge, search was made for the stomach—a somewhat difficult matter, owing to the tenseness of the abdominal parietes, and the shrunken condition of the viscus itself. Pulled down and firmly held by forceps, an opening into it was made, its edges stitched to the parietal incision, and a tracheotomy tube of moderate size, and with a large shield, secured in the wound. Milk, in gradually increasing doses, and stimulants, were now easily passed into the stomach, and the three remaining days of the man's life were spent in comparative comfort.

"The operation scarcely raised the pulse, and the patient repeatedly expressed the opinion that it was worth while having undergone it, were it for no other thing than the quenching of his thirst. A post-mortem was with difficulty obtained. The cardiac end of œsophagus was found converted into an epitheliomatous mass, through which, even with the assistance of daylight, no passage could be found. The stomach was very small, and had been struck about its middle. The opposed serous surfaces of stomach and parietal incision were in parts adherent, and the incision itself, in all its length, healing. The peritoneum had not inflamed—a sufficiently remarkable fact, considering the free handling to which it had been subjected."

38. *Gastrotomy in Cases of Internal Strangulation.*—Dr. Delaporte, in an inaugural thesis just published in Paris, having carefully compiled and investigated a large number of cases bearing upon the above subject, comes to the following conclusions: Gastrotomy, far from being an invariably fatal operation, has afforded as numerous successful results as other major operations. Gastrotomy, which is pointed out by theory as the best surgical treatment of internal strangulation in the majority of its forms, should therefore hold its place in practice. Gastrotomy, which offers as many chances of success as enterotomy, and which gives more complete results of cure, should always be preferred to enterotomy in cases where some doubt exists as to the cause of strangulation or the choice of an operation. Gastrotomy, when once seen to be necessary and decided upon, must be performed as soon as the symptoms leave no doubt as to the existence of internal strangulation; and as early as possible, in order to frustrate the development of peritonitis, the formation of adhesions, gangrene of the intestine, and exhaustion of the patient. The opening of the abdomen must be made in the mesial line, and largely, so as to permit free access to the cause of the strangulation. If the strangulation cannot be reduced the operation must be terminated by opening the bowel in the most favourable situation, and the establishment of an artificial anus through the primary incision. Gastro-enterotomy would thus be performed.—*Lancet*, Aug. 31, 1872.

39. *Extraction of Foreign Bodies from the Ear.*—M. Miot remarks that the extraction of foreign bodies that had gained entrance into the ear, although generally accomplished with facility, had been the subject of a host of inventions now for the most part forgotten. Instruments had been constructed often of great ingenuity, as though it had been desirable to forget that the best mode of extracting a foreign body in this situation is to inject a stream of warm water, varying in strength and volume. M. Miot then proceeds to treat of foreign bodies in the ear under the three heads of liquids, soft bodies, and hard bodies. In regard to *liquids*, he remarks that they may either enter from without or be formed, as in the case of pus, in the ear itself. Otitis is often set up by the prolonged retention of water in the lower parts of the meatus, after a general bath. At the outset it is sufficient to pass down a small wad of cotton wool and keep it there for a few seconds, but if pus have already made its appearance it should be carefully and frequently removed. Various substances are often injected for the cure of deafness by quacks, as laudanum, ether, chloroform, etc., but if these are employed at all they should be very much diluted. M. Miot states that Mdlle. Cléret did much harm in many cases by the instillation of sulphuric ether in the pure state. As regards *soft substances*, wool, cotton-wool, peas, and many other substances are often met with, and these are generally extracted with facility, either with forceps or by injection of warm water. *Injudicious attempts to remove hard bodies* often give rise to distressing results. Whenever it is necessary to remove such with instruments, good light and properly constructed instruments, bent at a right angle and with delicate limbs, should be employed. It is better to wait than to perforate the tympanum, or do other serious mischief. Irrigation with warm water should, speaking generally, first be employed. The foreign body may occupy different parts of the organ, as the external part of the meatus, the osseous portion, partly in the meatus and partly in the tympanum, and finally altogether in the tympanum, where it may either be visible or invisible.

In the first case extraction is easy: care must be taken not to push it into the wider portion of the tube near the membrana tympani; but, if this should unfortunately happen, irrigation may be had recourse to with every hope of success. It must be recollected, however, that the tympanic membrane may be broken down if the current of water be injected too vigorously. Should this plan not succeed, Richet's modification of Leroy d'Etiolle's curette or M. Bonnafond's canula forceps may be employed, or one of the instruments that M. Miot has himself suggested. A slender rod, capable of having the last quarter of an inch bent at a right angle by means of a wire running up to the handle, but which can be introduced straight between the foreign body and the wall of the meatus, is often serviceable in cases of oval and irregularly shaped bodies. Rounded bodies are sometimes extremely difficult to extract. In one very troublesome case he used two-elbowed extractors with success. Bits of glass tubing may be best removed after a little judicious manipulation by forceps, with a good otoscope and suitable instruments: the use of these is preferable to injection. The cases where the body is partly in the tympanum and partly in the meatus, chiefly consist of those where pins and pieces of wood have been pushed in during ineffectual attempts at removal. He gives an instance where he removed such a fragment of a lucifer match by means of the sharpened point of an elbowed or articulated extractor. Lastly, the foreign body may be altogether in the tympanum, and either visible or invisible. He describes a case where, having recognized the presence of a foreign body (a button) in the tympanum, he attempted its removal by the injection of warm water, but the only result was so to displace it that it was no longer visible, and he was only able again to bring it into view by throwing in an injection through the Eustachian tube, and he then managed to extract it by a sound with a hook. Living animals may be extracted by irrigation, either at once or after the instillation of a little camphorated oil or weak solution of potash: if they have passed through, by a small orifice through the membrana, into the tympanum, the opening may be enlarged and irrigation resorted to. M. Miot states, in conclusion, that from clinical observation he is satisfied that a foreign body may remain for a considerable period in the tympanum without fatal results; and it is therefore not surprising that such a body may long remain in the external ear without occasioning appreciable symptoms. Secondly, it is by no means necessary to employ injections of warm water in *all* instances where there is a foreign body in the meatus, because some drops of water remain on the inferior wall of the meatus, and this collection may, when the patient is exposed to cold, prove very troublesome.—*Practitioner*, April, 1872, from *Abeille Médicale.*

40. *Comminuted Fracture of the Atlas.*—Dr. E. HAMILTON exhibited to the Dublin Path. Soc., an interesting specimen of the cervical vertebræ of a man, æt. 40, who had fallen from a height of sixteen or seventeen feet, apparently on his vertex, for there was no mark of injury anywhere else. There was a contusion on the top of the scalp, showing the great probability that he had fallen head foremost, and that his vertex had struck the ground. He was seen in the act of falling, and was therefore very soon after the accident attended by Mr. Colles, the resident surgeon at Steevens's Hospital, who was sent for to see him at the concern where the accident happened. When seen by Mr. Colles, he presented the appearance of collapse, which he (Dr. Hamilton) thought was peculiar, having regard to the injury. It was collapse characterized more by failure of the circulation than by what they should rather have expected to find—failure of innervation; for he rallied in a short time, recovering consciousness in a very few minutes after the accident, and was able to give an accurate and detailed account of what had occurred to him. This was a most important matter, to which he wished to direct the particular attention of the Society. The man was removed to hospital, and submitted to a careful examination. From a line an inch above the nipple down to the extremities, there was complete loss of muscular power, both voluntary and reflex. On irritating the soles of the feet, there was to be seen a slight flickering movement of the toes, but he attributed this rather to direct excitation than to reflex movement. A similar condition had been noted in other recorded cases. There was also a

complete loss of sensation from the nipple down, and they could draw a line across, which was the border line of sensation and anæsthesia. There was priapism. The surface was cold and clammy; the temperature was low, and the respiration was carried on by the diaphragm, the intercostal muscles being thrown altogether out of action. The pulse was below 40°. On examining the neck, they found the man's head thrown very much backwards, almost reminding one of opisthotonos. On passing the hand lower down they detected a prominent and tender spot, pressure on which caused pain; and, from the appearances presented, they hazarded the diagnosis, that there was a fracture or injury producing pressure on the cord at about the fifth cervical vertebra. He had complete power of the upper extremities; he had power of deglutition, and considerable motor power above the point indicated by the line. On the next day he presented somewhat similar symptoms. He rallied a little; his pulse rose in frequency, and the temperature was also a little raised. There was retention of urine; the priapism was continuous and even more marked, and he complained of a remarkable symptom, which he (Dr. Hamilton) could not satisfactorily explain, that at the line of junction between sensation and insensibility there was hyperæsthesia. He complained of extreme tenderness, of a feeling as if the part were burned if anything touched it, just at the border line. He sank, became weaker and weaker, and at last died apparently of asthenia, having survived the accident forty-eight hours. The temperature ranged from 85° to 98°. In making the post-mortem examination, the first thing that struck Mr. Colles on passing in his finger to detach the spine, was that the atlas was perfectly comminuted: a fracture traversed the anterior arch. The posterior arch was broken in two places; the right transverse process was broken, but the odontoid process was uninjured. Further down they found a fracture, with displacement of the sixth cervical vertebra. They found it thrown backwards, and the intervertebral substance torn across; the laminæ of the vertebræ were torn, and hence there was great pressure on the spinal cord. The peculiarity in the case was, in the first place and especially, the amount of injury done to the atlas, while the cranium was perfectly uninjured. It seemed as if the entire force was carried from the vertex to the atlas. It was most remarkable, also, that with this great amount of violence there should have been such a slight effect on the brain. The concussion of the brain passed off very quickly, which was greatly to be wondered at under the circumstances. The other symptoms were such as might have been expected from a fracture occurring in the neighbourhood of the sixth cervical vertebra.—*Dublin Journ. Med. Sci.*, May, 1872.

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41. *Remarkable Case of Injury of the Spine.*—Mr. H. Grace relates (*Brit. Med. Journ.*, July 20) the case of a man, æt. 22, who, while at work on his knees hewing coal from a seam, was crushed by an ironstone weighing ten or twelve hundred weight, which fell suddenly on his shoulders; the weight literally doubled him up, forcing the head down between his thighs, and the perinæum close against the heels. It required the united efforts of three powerful colliers to lift the mass, by the aid of long iron bars, sufficiently high to allow a fourth to drag him from underneath—his own impression afterwards being that he lay there about five minutes. He was placed in this flattened condition in a cart, and carried to his home. A medical man who saw him found him cold, breathing in a short and hurried manner, with the pulse feeble and intermittent, and to all appearances rapidly sinking.

The first, second, third, and fourth lumbar vertebræ all appeared more or less implicated in the injury; both sensation and motion below the parts affected being utterly lost. One of the doors of the room in which the man was lying was soon taken down from its hinges, and placed under the mattress. With the aid of two men at his shoulders and two at his feet, extension was made; and the back resumed its normal position with a crack that was heard at a considerable distance. The breathing was immediately relieved, and the pulse improved by this reduction. The time that had elapsed from the occurrence of the accident was about an hour. The patient, not being satisfied with his medical attendant, sent for Mr. G., eight or ten days after the accident. Mr. G.

"found that the door above spoken of had been removed from beneath the mattress, and that, consequently, the sacking of the bed had sunk considerably in the centre; moreover he had been raised and held in an upright position daily, for the purpose of introducing the catheter; these two causes combined had again displaced the back. I had the door immediately replaced on the bedstead, and a second time made extension, and again restored the spine to its normal position. This restoration was almost instantly followed by a slight motion in the great toe of the left foot.

"I gave strict orders that he should remain still on his back, and that not even his shoulders should be raised on any pretext whatever. Sensation and motion gradually returned to the anterior portion of the left foot, leg, and thigh, and to the posterior portion, in a less degree, about half way up the thigh; and about a month after the accident, similarly to the right leg. During the first two months, it was necessary to pass the catheter daily; after which period, the urine began to escape involuntarily, and it has continued to do so up to the present day.

"Three months elapsed before he could move his legs tolerably in bed, at which period I turned him on his side, and found, on examination of the back, a small bed-sore just over the sacrum, utterly devoid of sensation, of considerable depth, the slough of which was a long time in separating.

"In another month he was able to sit in a chair, and to walk across the room by the aid of the various articles of furniture. His progress towards perfect recovery of physical strength extended over a period of two years and a half, when he was able to resume his work as a collier.

"His present condition as regards sensation has not altered in the slightest degree since the fourth month after the accident, and is as follows. The sensibility in the soles of both feet, and in the posterior portion of both legs, is much impaired; and around the anus, perinæum, inner part of both buttocks, scrotum, and penis, it is *entirely* destroyed. Although there is a slight sensation under pressure in the testicles, so complete is the absence of sensation in the buttocks, that when, last summer, he sat down on a garden-flue, ignorant of the fact of its being heated, his trousers were burnt through, and the skin completely charred, yet he was unaware of the fact till his wife noticed it, three days afterwards, whilst he was washing. The slough was somewhat deep, and the scar is still visible.

"Whilst at work in the pit, he frequently gets severe scratches and cuts on the soles of his feet, which he hardly feels. Each day, on his return from work, he regularly goes to the closet, and, by dint of powerful efforts, forces the feces to pass when solid, for when liquid they are not retained. At this time, the urine runs involuntarily in a stream, though at other times it drips continuously into an India-rubber urinal which he wears permanently; but in neither case is there any feeling of the passage of feces or urine.

"At the time of the accident, he was married, and the father of one child a twelvemonth old. Six months after the accident, in spite of the utter absence of feeling in the penis, he began to resume his matrimonial duties; and two children have been born to them since the resumption of the functions of his generative organs.

"The first loss of sensation and motion below the seat of injury was doubtless owing to the pressure on, or the solution of continuity in, the nerves forming the lumbar and sacral plexuses, the former of which evidently recovered its powers gradually during the first four months. The total loss of sensation can, I think, be only attributed to the breach of the pudic lesser sciatic nerve. Hence it would appear that, if the fact asserted by Günther—viz., 'that the erection of the penis in the horse entirely ceases on cutting the pudic nerve'—be correct, it has no analogy in the case of man; for here we have the pudic nerve evidently destroyed (as proved by the entire absence of all sensation in the perinæum, integument of the penis, etc.), and yet the power of erection is retained to such an extent as to allow fruitful coition. I cannot, therefore, but hold the opinion that the erection of the penis is due to the operation of the sympathetic system, the functions of which, I think, still remain in considerable obscurity. I take it there is very little doubt that the nerves of the sympathetic system may be regarded as conductors of impressions; and, this being the case, what more natural than the fact of dwelling upon the enjoyment to be derived from coition should cause a turgescence of the organ lasting sufficiently long for it to enter the vagina and there fulfil its purpose in the animal economy? Moreover, the sympathetic system seems in general to influence the processes of involuntary motion, secretion, and nutrition; and this, considering the fact of the continued secretion of the semen by the testicles, and its ejection on coition, accompanied by no diminution of the sensations usually accompanying the act, may, I think, be fairly considered an additional argument in favour of my opinion that the pudic nerve can have but very little to do with the erection of the penis; whilst the nerves of the sympathetic system, which have not suffered any material injury, are directly concerned in that erection."

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42. *Transverse Fracture of the Second Piece of the Sternum, caused by a Blow with the Fist.*—An interesting case of this is under the care of Dr. Despes, at the Hôpital Cochin. Neither the heart nor lungs appear to have been injured, but the fracture of the sternum is shown by crepitation, and the fragments may be moved one on the other.—*L'Union Médicale*, June 15, 1871.

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43. *Ingrowing Toe-Nail.*—Dr. Henry Finch correctly observes (*Brit. Med. Journ.*, Aug. 24, 1872), that "neither of the cutting operations is at all necessary for the complete and rapid cure of ingrowing toe-nail. If a small, thin, flat piece of silver plate be bent at one edge into a slight deep groove, and, after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the thin plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed round the toe, a speedy and almost painless cure will take place; and the patient, after the first day, has the additional advantage of being able to walk. I have followed this method in numerous cases with uniform success."

[This plan of treatment is by no means new. We distinctly remember having seen it advised years ago, though we cannot recall the proposer's name. We have treated a number of cases by a still simpler plan, and one which we have found to be entirely successful. This consists in insinuating with a narrow-bladed knife some lint between the nail and flesh, and renewing the application daily. In the early stage, this treatment is all that is required; but when the parts are much inflamed, a poultice may, at the same time, be necessary, and, if fungous granulations have occurred, they may require some caustic application, as nitrate of silver or red precipitate.

The cause of this troublesome affection is not, according to our experience, any peculiarity in the growth of the nail, as is generally supposed, but is usually caused by careless cutting of the nails, by which a rough edge is left, which, forcibly pressed upon the flesh by the shoe, causes ulceration. By the simple treatment above described, we are persuaded the barbarous operation of evulsion of the nail may be dispensed with.—Ed.]

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44. *Means of Recognizing the Presence and Character of Metallic Substances in Gunshot Wounds.*—M. Desneux suggests the following proceeding, which he has employed in three cases. A flexible stem is covered at one of its ends with lint steeped in a solution of nitric or acetic acid, or simply vinegar. The lint is introduced into the wound for a few minutes, and then put into contact with a solution of iodide of potassium, so that reaction may take place. If there is any lead in the wound, the yellow colour of iodide of lead is immediately produced.—*Lancet*, Aug. 10, 1872, from *Bull. de l'Acad. de Méd. de Paris*, July 16, 1872.

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45. *Nature of Melanotic Tumours.*—Dr. Nepven concludes, from his investigations of melanotic tumours, that the melanotic matter is immediately derived from the blood. This is proved by the fact of the existence of colouration varying from yellow and brownish-red to black in melanotic tumours; the presence of yellow matter and blackish granulations in the cells of the tumour

(plasmatic cells), and even in the capillaries, the glands and cutaneous epithelia being perfectly healthy. The alteration of the blood takes place locally in the tumour itself. Diffusion and hemorrhage are the two causes of the colouring matter from the bloodvessels. It is probable that the elaboration of the cells themselves accounts in some degree for the intensity of colouration, and the rapid metamorphosis of colouring matter. Melanosis is, therefore, merely an accident in certain tumours, and this would explain how some tumours are only partially melanotic. Part of the melanotic substance may be found in the blood, urine, and principal viscera in the form of colouring matter or a finely granulated substance. Several experiments of inoculation failed to reproduce melanosis.—*Gaz. Méd. de Paris.*

46. *Disease of the Maxillary Sinus.*—Dr. WILLRICH relates the case of a man, 45 years of age, who for some eighteen months had suffered from a projection outwards of the left side of the nose, and a frequent discharge from the nostril of masses of a cheese-like appearance, exhaling a very fetid odour. The diagnosis in the case was carcinoma of the septum narium. In preparation for an operation, the left side of the nose was split open, when it was discovered that the entire disease consisted in a distension of the thin shell of bone covering the left sinus by an accumulation within the latter of thickened pus, and the pressing the outer parietes against, and pushing outwards the left side of the nose, without the presence of any apparent alteration in the parts. The escape of the thickened pus was soon followed by entire healing. A similar case was in 1855 recorded by Maisonneuve.—*Centralblatt f. d. Med. Wissenschaften*, June 22, 1872, from *Deutsche Zeitschr. f. Chirurg.* i. pts. 1, 2, 3. D. F. C.

OPHTHALMOLOGY.

47. *Cancerous Tumour originating in an Eye which had been long lost from some Inflammatory Affection.*—Mr. GEORGE LAWSON relates (*Royal London Ophthalmic Hospital Reports*, July, 1872) a very instructive case of this, and remarks in regard to it, that "it shows one of the evils, which may arise from a lost eye which is undergoing degenerative changes, is that it may become the seat of malignant deposit. It is true that instances of cancerous growths, originating in old lost eyes, are comparatively rare, yet they occur with sufficient frequency to show that the structural metamorphosis which usually, after a time, takes place in eyes which have been destroyed by accident or disease, is favourable for the production of cancer. A question naturally suggests itself, whether it is possible that the accidental loss of an eye may lead to such a series of inflammatory and degenerative changes as to render that eye liable to the development of cancer within it? In answer to this, I would say that I believe that accidental causes often determine the locality and the first outbreak of cancer; and, further, that if the cancerous affection had not been thus originated, many a patient might have passed through life without having given any evidence of a constitutional predisposition to the disease. In support of this statement, I would refer to the undoubted history so often given by patients, of the first outburst of cancer in different localities of the body. Cancer of the lip frequently originates from an accidental scratch; cancer of the scrotum from the irritation of soot; and cancer of the tongue will often commence at the point which has been fretted by a rugged tooth. In females the repeated history of a blow on the breast as being the first exciting cause of scirrhus, cannot be ignored. A very remarkable instance of how an accident may produce a wound which will assume a cancerous nature, occurred in a patient under the care of my colleague, Mr. Hulke, in the Middlesex Hospital. An apparently healthy man was smoking his pipe, when his little girl, whom he was nursing, jerked her arm against the pipe stem and caused the